

## Rice County

### Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors 6/28/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 16 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Rice County economy.<sup>1</sup>

These 16 sectors have a total direct output of approximately **\$275.4 million** and support **1,145 jobs** in Rice County. Running the model for all 16 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Rice County Economy					
Contribution Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>
<b>Direct Effect</b>	1144.7	18.22%	\$74,252,311	18.27%	\$275,394,156
<b>Indirect Effect</b>	233.9	3.72%	\$21,714,356	5.34%	\$39,105,885
<b>Induced Effect</b>	252.3	4.01%	\$17,278,180	4.25%	\$30,736,753
<b>Total Effect</b>	1630.9	25.95%	\$113,244,847	27.87%	\$345,236,794

As shown in the above table, agriculture, food, and food processing sectors support **1,631 jobs**, or **25.95%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 16 agriculture, food, and food processing sectors is approximately **\$113.2 million**, or **27.87% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

<https://implanhelp.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis>

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **471 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Rice County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	470.8	\$72,787,637
Support activities for agriculture and forestry	177.7	\$5,954,796
Farm machinery and equipment manufacturing	158.1	\$59,978,226
Grain farming	132.6	\$56,683,723
Wholesale trade	61.2	\$14,333,251
Spice and extract manufacturing	48.8	\$26,550,097
Truck transportation	36.8	\$5,159,984
Animal production, except cattle and poultry and eggs	35.8	\$4,055,406
All other crop farming	32.1	\$2,807,510
Limited-service restaurants	30.9	\$2,077,637

The beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector directly contributes approximately **\$72.8 million** to the Rice County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	470.8	\$72,787,637
Farm machinery and equipment manufacturing	158.1	\$59,978,226
Grain farming	132.6	\$56,683,723
Spice and extract manufacturing	48.8	\$26,550,097
Oilseed farming	20.4	\$23,279,297
Dry pasta, mixes, and dough manufacturing	30.4	\$17,912,274
Wholesale trade	61.2	\$14,333,251
Owner-occupied dwellings	0.0	\$6,925,796
Support activities for agriculture and forestry	177.7	\$5,954,796
Real estate	19.9	\$5,316,817

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Rice County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	20.4	\$23,279,296.88
Grain farming	132.6	\$56,683,723.45
Greenhouse, nursery, and floriculture production	5.6	\$337,561.13
All other crop farming	32.1	\$2,807,509.90
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	470.8	\$72,787,635.80
Dairy cattle and milk production	1.1	\$201,932.53
Poultry and egg production	5.8	\$2,523,539.78
Animal production, except cattle and poultry and eggs	35.8	\$4,055,405.62
Commercial hunting and trapping	1.1	\$20,657.29
Support activities for agriculture and forestry	177.7	\$5,954,795.84
Bread and bakery product, except frozen, manufacturing	4.9	\$550,795.08
Frozen cakes and other pastries manufacturing	0.3	\$44,643.31
Dry pasta, mixes, and dough manufacturing	30.4	\$17,912,273.41
Spice and extract manufacturing	48.8	\$26,550,096.51
Farm machinery and equipment manufacturing	158.1	\$59,978,225.71
Veterinary services	19.5	\$1,706,062.08

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Rice County, the retail sector was omitted.